National Institute of Environmental Health Sciences

The influence of weather on community gastroenteritis in Australia

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Abstract:

Infectious gastroenteritis is a common illness in Australia as elsewhere. Data from a year-long national gastroenteritis survey in 2001-2002 showed that gastroenteritis was more common in the northern and hotter part of Australia. These data were used to quantify associations between local weather variables and gastroenteritis in people aged >5 years while controlling for socioeconomic status. A distributed lag model was used to examine the influence of weather over a period of days prior to an event and the maximal effect was found at a lag of 2-5 days. The total effect over the preceding week indicated a relative increase from baseline in the probability of gastroenteritis of 2.48% (95% CI 1.01-3.97) for each degree rise (degrees C) over that period. Given the very high burden of gastroenteritis, this represents a substantial effect at the population level and has relevance for health predictions due to climate change.

Source: http://dx.doi.org/10.1017/s0950268810001901

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Australasia

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease (other): Gastroenteritis

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology: ☑

type of model used or methodology development is a focus of resource

Outcome Change Prediction

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Low Socioeconomic Status

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content